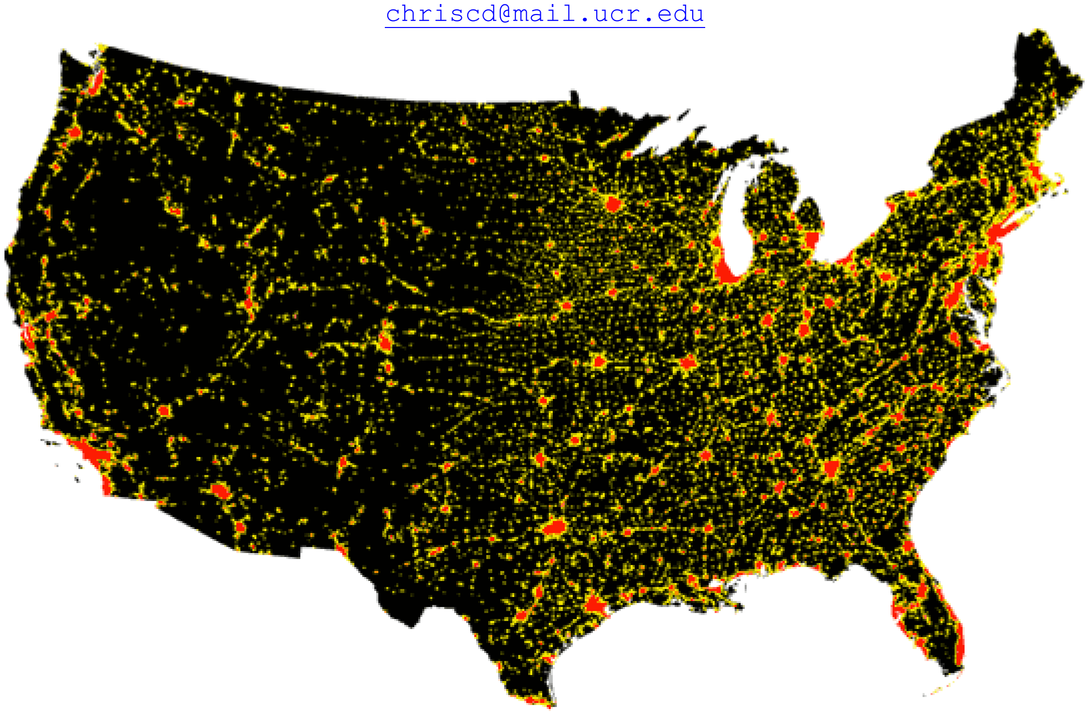
The Trajectory of the United States in the World-System:
A Quantitative Reflection

Christopher Chase-Dunn, Rebecca Giem,
Andrew Jorgenson, Thomas Reifer, John Rogers and Shoon Lio
Department of Sociology and Institute for Research on World-Systems
University of California, Riverside
http//:irows.ucr.edu
IROWS Working Paper # 8
http://irows.ucr.edu/papers/irows8/irows8.htm
University of California, Riverside.
Riverside, CA. 92521
chriscd@mail.ucr.edu



City lights from satellite photographs

Abstract: Revised estimates of world GDP, population and GDP per capita published by Angus Maddison (2001) make possible a quantitative reexamination of the trajectory of the United States in world historical perspective and comparisons between the U.S. economic hegemony of the twentieth century with the Dutch hegemony of the seventeenth century and the British hegemony of the nineteenth century. We also track the trajectories of challengers to reflect on the future of hegemonic rivalry.

Presented at the XV ISA World Congress of Sociology, Brisbane, Australia, Wednesday, July 10, 2002, 1:30-5:30pm Sessions on "American Primacy or American Hegemony?" Research Committee on Comparative Sociology, organized by Neil Smelser and Mattei Dogan.
Draft V. 7-2-02, 7544 words)

A revised version was published in *Sociological Perspectives* 48,2: 233-254. 2005.

The Evolution of Rise and Fall

Concerns about empire, hegemony and the distributions of power and wealth among the peoples of the world are both *au courant* and deeply historical. An institutionalized global culture of human rights and equality shines an embarrassing floodlight on the objective rise of within-nation and global inequalities generated by corporate capitalist globalization. This is producing a renewed reaction against the wave of marketization and commodification of human social relations that is likely to be similar in some respects to the globalization backlash that occurred during the late nineteenth and early twentieth centuries. This Polanyian (Polanyi 2001) "double-movement" of commodification and the reassertion of political regulation over market forces is an old phenomenon that reinvents itself in unique ways every time it comes around, depending on the exact nature of the problems that need to be solved and the actions of the agents who mobilize to solve them. An important component of this elaborate dance is the recurrent phenomenon of "rise and fall," the centralization and decentralization of political/military and economic power that is a characteristic of all hierarchical world-systems.

Complex interchiefdom systems experienced a cycle in which a single paramount chiefdom became hegemonic within a system of competing polities (Anderson 1994; Chase-Dunn and Hall 1997: Chapter 5). Once states emerged within a region they went through an analogous cycle of rise and fall in which a single state became hegemonic and then declined. Eventually these systems of states (interstate systems), experienced the phenomenon of **semiperiperal marcher conquest** in which a new state from out on the edge of the circle of old states conquered all (or most) of the states in the old core region to form a "universal empire" (see Figure 1).

This pattern repeated itself for thousands of years, with occasional leaps in which a semiperipheral marcher state conquered larger regions than had ever before been subjected to a single power (Akkad, Assyria, Achaemenid Persia, Alexandrian Hellenism, the Han Empire, Rome, the Islamic Caliphates, the Aztec and Inca Empires, the Manchu Dynasty in China).

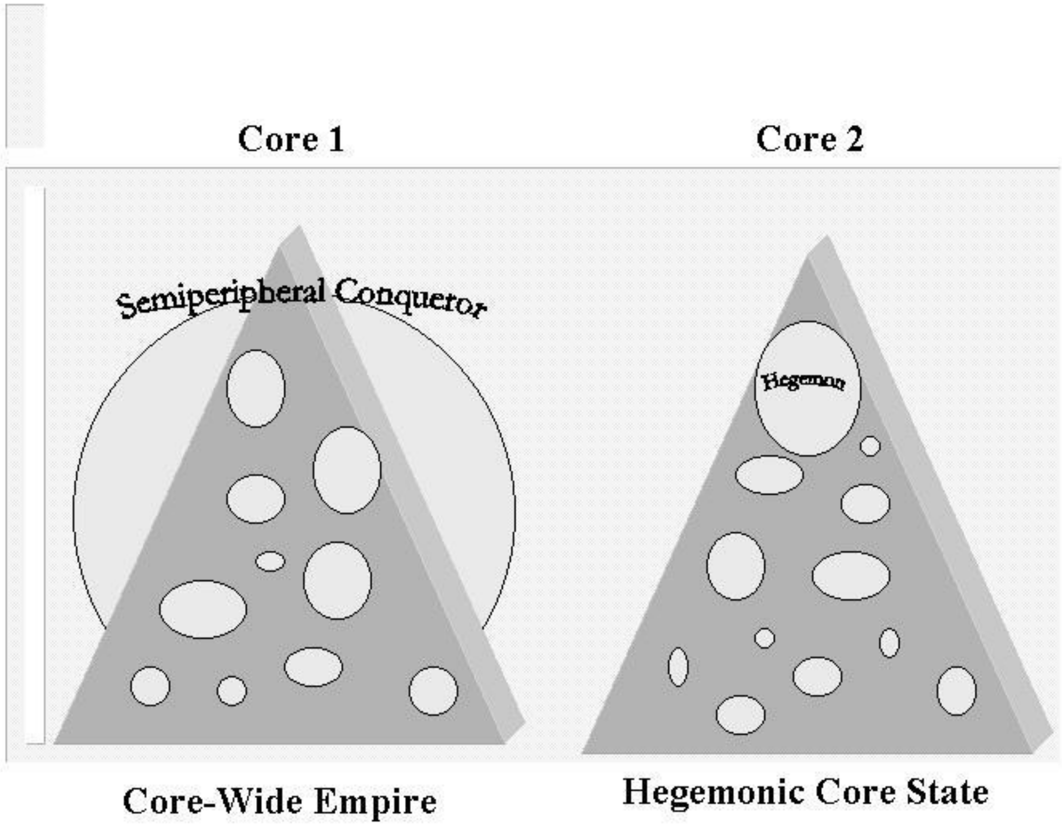


Figure 1: Core-Wide Empire vs. Hegemonic Core State

With the rise of Europe and intensified capitalism a modification of this old pattern appeared. In the European interstate system the semiperipheral marcher states were outdone by a new breed of capitalist nation-states. These capitalist hegemons established primacy in the larger system without conquering adjacent core states, and so the core remained multicentric despite the continued rise and fall of hegemonic core powers. Imperialism was reorganized as colonial empires in which each core state had its own peripheral "backyard." The efforts by some core powers to conquer their neighbors were defeated by coalitions that sought to reproduce a multistate structure among core states. Thus the oscillation between "universal state" and "interstate system" came to end and was replace by the rise and fall of hegemonic core powers. The hegemonic sequence of the modern interstate system alternates between two structural situations as hegemonic core powers rise and fall: hegemony and hegemonic rivalry. This was a new form of the process of rise and fall (see Figure 2).

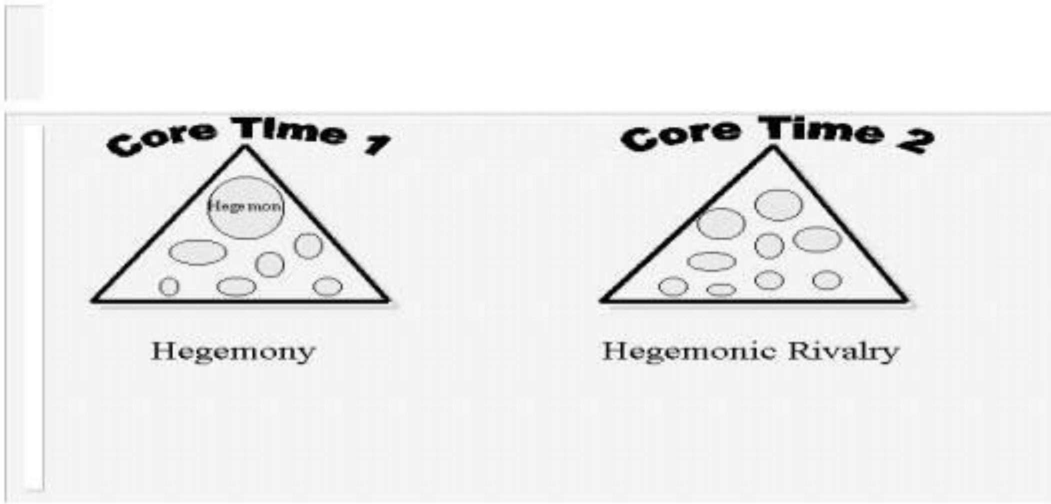


Figure 2: Unicentric vs. Multicentric Core

The Westphalian interstate system, in which the sovereignty of separate and competing states is institutionalized by the right of states to make war to protect their independence, has become a taken for granted institution in the modern world-system. Historians of international relations (e.g. Kennedy 1987) and theorists of international relations (e.g. Waltz 1979) have come to define this situation as a natural state of being. Authors with greater temporal depth (e.g. Wilkinson 1988, 1999) have argued that the peculiar resistance of the modern interstate system to the emergence of a universal state by means of conquest has been the result of an evolutionary learning process unique to modern Europe in which states realized that in order to protect their own sovereignty they should band together and engage in "general war" whenever a "rogue state" threatens to conquer another state.

A rather different explanation of the modern transition from the pattern of semiperipheral marcher state conquest to the rise and fall of hegemonic core powers points to the emergent predominance of capitalist accumulation in the European-centered interstate system. Once capitalism had become the predominant strategy for the accumulation of wealth and power it partially supplanted the geopolitical logic of institutionalized political coercion as a means to accumulation. Powerful capitalist core states emerged that could effectively prevent semiperipheral marcher states from conquering whole core regions to erect a "universal state." The first capitalist-nation state to successfully do this was the Dutch republic of the seventeenth century.

New Quantitative Data on Economic Hegemony

Angus Maddison (2001) has published a revision and extension of his long-range estimates of populations, gross domestic products and levels of economic development of countries and world regions. His most recent endeavor presents quantitative snap-shots of economic and demographic change over the past 2000 years. In this paper we combine the more detailed estimates from Maddison's (1995) earlier publication with the more recent and revised estimates published in 2001 to paint a quantitative picture of the trajectories of economic hegemony in the modern world-system.

Maddison's estimates make it possible examine the relative sizes and levels of development of the national states and how these have changed over time. The necessary methodological operation for these economic estimates has been to transform statistical evidence from all over the world and from earlier centuries into a single comparable metric – 1990 "international dollars." Maddison (2001:171-175) carefully explains and justifies his use of PPP (purchasing power parity) estimates rather than currency exchange rates to convert country currency data into constant dollars. Purchasing power parity estimates convert GDP estimates denominated in country currencies into one another by estimating comparable purchasing power for consumer goods and the other elements that compose the Gross Domestic Product. Maddison has worked for years on efforts to produce comparable estimates for very different kinds of accounting systems (e.g. the Net Material Product of centrally planned economies) and for different kinds of economies (e.g. highly monetized vs. the partially monetized economies in the periphery of the world-system). Maddison applies all this experience to the most difficult task he has yet undertaken – the valuing of the economic activity of premodern world regions. These quantitative estimates shed important light on the various contentions of the social scientists and historians who have made comparisons of the modern hegemons.

Theoretical Perspectives on Rise and Fall

There has been a vociferous debate over terminology that reflects underlying theoretical and disciplinary differences among those who have sought to compare power processes over recent centuries. As David Wilkinson has said, our concepts contain the bones of our disciplinary ancestors. Some historians and historical sociologists, while making the requisite comparisons between Dutch, British and U.S. histories, reject the idea that these histories should be considered instances of a single phenomenon(e.g. Mann 1993; O'Brien 2002). In other words, they stress the differences to the extent of trivializing the similarities, though the particular differences they stress are themselves different. Both Mann and O'Brien refuse to characterize the role of Britain during the *Pax Britannica* as hegemonic, especially as compared with the superpowerdom of the United States in the post-World War II period. Britain is seen as a fore-reacher leading the world in the ways of industrialization and democracy, but not as a controller or exploiter of other countries. The question of the relative size of the British economy in the larger world economy during the nineteenth century compared with relative size of the U.S. economy during the twentieth century is a matter that we shall investigate below.

Among those who are more willing to analyze structural similarities across different historical periods, the ways in which these similarities are defined vary greatly. Several dimensions are at play in these differences. One important distinction among theorists is between the functionalists (who see emergent global hierarchies as serving a need for global order,) and conflict theorists (who dwell more intently on the ways in which hierarchies serve the privileged, the powerful and the wealthy). The term "hegemony" usually corresponds with the conflict approach, while the functionalists tend to employ the idea of "leadership," though several analysts occasionally use both of these terms (e.g. Arrighi and Silver 1999). Another difference is between those who stress the importance of political/military power vs. what we shall call "economic power." This issue is confused by disciplinary traditions (e.g. differences between economics, political science and sociology). Most economists entirely reject the notion of economic power, assuming that market exchanges occur among equals. Most political scientists and sociologists would agree that economic power has become more important than it formerly was. Some of the literature on recent globalization goes so far as to argue that states and military organizations have been completely subsumed by the power of transnational corporations and global market dynamics (e.g. **XXXXX**).

Rather than reviewing the entire social science corpus of theories, we will describe four contrasting and overlapping approaches in some detail – those of Wallerstein (1984, 2002), Modelski and Thompson (1994); Arrighi (1994) and Rennstich (2001, 2002). Wallerstein defines hegemony as comparative advantages in profitable types of production. This economic advantage is what serves as the basis of the hegemon's political and cultural influence and military power. Hegemonic production is the most profitable kind of core production, and hegemony is just the top end of the global hierarchy that constitutes the modern core/periphery division of labor. Hegemonies are unstable and tend to devolve into hegemonic rivalry.

Wallerstein sees a Dutch seventeenth century hegemony, a British hegemony in the nineteenth century and U.S. hegemony in the twentieth century. He perceives three stages within each hegemony. The first is based on success in the production of consumer goods; the second is a matter of success in the production of capital goods; and the third is rooted in success in financial services and foreign investment stemming from the institutionalized centrality of the hegemon in the larger world-system.

George Modelski and William R. Thompson (1994) are political scientists who never discuss capitalism and never use the term "hegemony." Their theoretical perspective contains a strong dose of Parsonsian structural functionalism as applied to international systems. The world needs order and so world powers rise to fill this need. They rise on the basis of economic comparative advantage in new lead industries that allow them to acquire the resources needed to win wars among the great powers and to mobilize coalitions that keep the peace. World wars are the arbiters that function as selection mechanisms for global leadership. But the comparative advantages of the leaders diffuse to competitors and new challengers emerge. Successful challengers are those that ally with the declining world leader against another challenger (e.g. the U.S. and Britain against Germany).

Modelski and Thompson (1994) measured the rise of certain key trades and industries, so-called "new lead industries," that are seen as important components of the rise of world powers. They also have measured the degree of concentration of naval power in the European interstate system since the fifteenth century (Modelski and Thompson 1988). Their "twin peaks" model posits that each "power cycle" includes two Kondratieff waves.[1] Their list of world powers begins with Portugal in the fifteenth century. Then they include the Dutch period of world leadership in the seventeenth century. And they see the British as having successfully performed the role of world leader twice, once in the eighteenth century and again in the nineteenth century. Thus they introduce the possibility that a world leader

[1] The Kondratieff Wave (K-wave) is a 40-60 year business cycle. The "A-phase" is a 20 to 30 year period of higher average growth rates in the world economy, while the "B-phase" is a 20 to 30 year period of lower average growth rates. The best evidence for the existence of the K-wave is to be found in price histories, but considerable evidence also exists for a production long wave (Goldstein 1988).

can succeed itself. They designate the United States as the world leader of the twentieth century.

Giovanni Arrighi's (1994) *The Long Twentieth Century* employs a Marxist and Braudelian approach to the analysis of what he terms "systemic cycles of accumulation." Arrighi rejects any consideration of K-waves as being unrelated to theories of capitalist accumulation.[2] He sees hegemonies as successful collaborations between finance capitalists and wielders of state power. His tour of the hegemonies begins with Genoese financiers who ally with Spanish and Portuguese statesmen to perform the role of hegemon in the fifteenth century. In Arrighi's approach the role of hegemon itself evolves, becoming more deeply entwined with the organizational and economic institutional spheres that allow for successful capitalist accumulation. He sees a Dutch hegemony of the seventeenth century, then a period of contention between Britain and France, and a British hegemony in the nineteenth century, followed by U.S. hegemony in the twentieth century. A distinctive element of Arrighi's approach is his contention that profit making from trade and production becomes more difficult toward the end of a 'systemic cycle of accumulation" and so big capital becomes increasing focused on making profits through financial manipulations. Arrighi's approach is compatible with the idea that new lead industries are important in the rise of a hegemony, but he sees the economic activities of big capital during the declining years in terms of speculative financial activities. These latter often correspond with a period of "growth" in which incomes are rising during a latter-day *belle époque* of the systemic cycle of accumulation. But this period of accumulation is based on the financial power of the banks and the centering of world markets in the global cities of the hegemons rather than on their ability to produce real products that people will buy, and so these *belle époques* are unsustainable and are followed by decline.

Recent research by Joachim Rennstich (2001) retools Arrighi's (1994) formulation of the reorganizations of the institutional structures that connect finance capital with states to facilitate the emergence of larger and larger hegemons over the last six centuries. Modelski and Thompson (1996) argued that the British successfully managed to enjoy two "power cycles,"[3] one in the eighteenth and another in the nineteenth century. With this precedent in mind Rennstich considers the possibility that the U.S. might succeed itself in the twenty-first century. Rennstich's analysis of the organizational, cultural and political requisites of the contemporary new lead industries – information technology and biotechnology – imply that the United States has a large comparative advantage that will most probably lead to another round of U.S. pre-eminence in the world-system. He argues that a hegemon can succeed itself if the rising industrial sectors within the hegemon are able to separate themselves sufficiently from the old declining industrial sectors. Rennstich focuses on the regional and institutional differences between old and new sectors of the U.S. economy.

Previous Research

Earlier studies have often most often proceeded by designating particular countries or networks as hegemonic during certain periods and dividing these periods up into subperiods. Only a few studies have quantitatively compared the hypothesized hegemons

---

[2] Many of the political scientists who analyze K-waves spurn any analysis of capitalism (e.g. Goldstein 1988; Modelski and Thompson 1994), but Marxist economists such as Ernest Mandel (1980) and David Gordon (1980) have provided important theorizations of the K-wave.

[3] "Power cycle" is Modelski and Thompson's term for what Arrigui (1994) calls "systemic cycles of accumulation" and Chase-Dunn (1998) calls the "hegemonic sequence."

with other core powers or subjected the subperiodizations to quantitative analysis. Modelski and Thompson (1988) examined the distribution of naval power among the "great powers" of the European interstate system since the fifteenth century. This is the most thorough and comprehensive quantitative study that actually measures hegemony by comparing contending countries over a long period of time. Modelski and Thompson's (1996) quantitative study of new lead industries does not break these down by country.

(summarize Kentor's book regarding hegemony findings here)

Demographic Power

The relationship between population and intersocietal power is complicated and has changed greatly as new techniques of power have evolved. Polities with more people have often been able to exercise power over polities with fewer people because more people means more warriors in a confrontation. But this relationship has been complicated by other factors. Military technology and organization, solidarity within societies, transportation and communication technology, logistics and geography are factors that have influenced geopolitics somewhat independently of demography. And demography itself has several dimensions. A polity may have large numbers, but where are they located and how are they organized and how quickly can they communicate with one another? What are the advantages conferred by geographical location? What kinds of societies can more effectively innovate and implement new strategies and techniques of power?

The phenomenon of semiperipheral development (Chase-Dunn and Hall 1997: Chapter 5) points to a recurrent pattern in which smaller, less stratified, and less population dense semiperipheral societies outcompete older core societies that have higher population densities. These issues need to be sorted out by a systematic comparative study of the relationships between different dimensions of demography (total population, population density, settlement sizes and locations) and different dimensions of intersocietal power relations. Maddison's (1995, 2001) revised estimates of population sizes of regions and polities provide us with a fresh opportunity to examine the question of size and power.

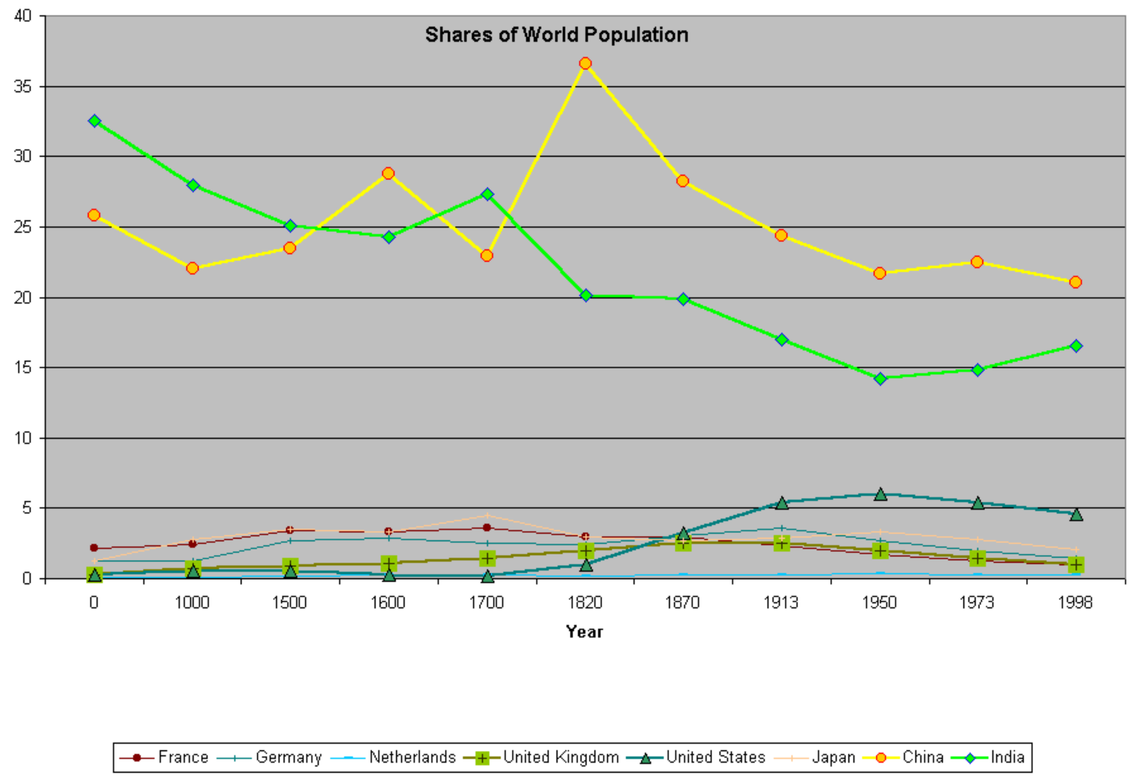


Figure 3: Shares of World Population, Last Two Thousand Years

Figure 3 shows shares of the total global population since the beginning of the Common Era two thousand years ago according to Maddison's (2001) estimates. The time scale on the horizontal axis of Figure 3 is misleading because the intervals are not equal. Keeping this in mind we can see that the countries that became hegemonic in recent centuries were never very significant and did not change much in terms of their shares of world population. The countries with the big shares, India and China, still have huge shares, though India declined quite a lot until 1950 and then begins to rise again. China peaked in 1820 and has mainly been declining since then. The United States rose above 5% of world population in 1913 and dropped below that level in about 1985.

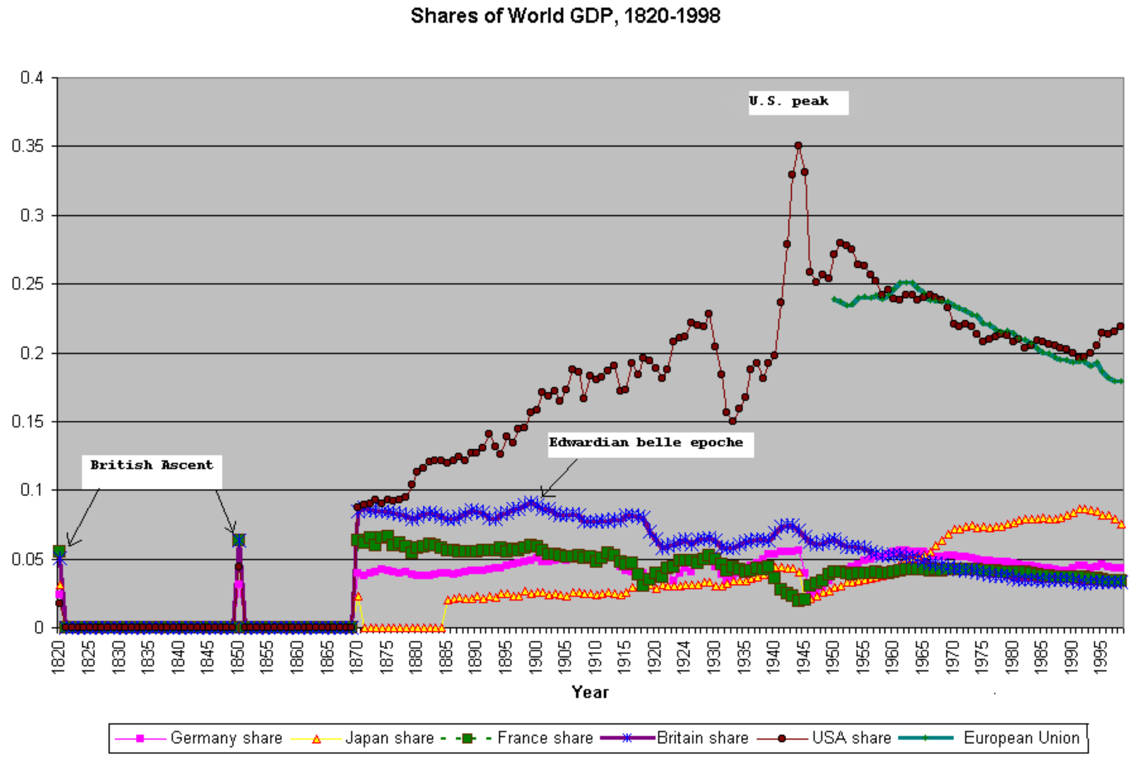
Is the total population of a region related to its power *vis a vis* other regions with smaller populations? This is part of the question of demographic power. Other dimensions of demographic power include relative population densities, and the sizes of settlements and cities. Total population size is obviously partly a reflection of territorial size. The "China" and "India" in Maddison's data are **regions** rather than single unified polities through the time span shown in Figure 3. Another potential problem with Figure 3 is the "systemness" of the included regions. It is usually presumed that China and India were not strongly connected with Europe and the Americas during the whole period shown. In the case of the Americas this is obviously true. The European countries only became linked directly through political/military interactions with India and China in the last few centuries, though pan-Eurasian prestige goods trade was already well developed two thousand years ago. Relative power assumes regularized interaction. We contend that regularized interaction networks should be the proper unit of analysis for studying world-systems (see Chase-Dunn and Hall 1997).

Figure 3 tells an important story despite its temporal and spatial problems. East Asia and South Asia were the population centers of the Earth, but have become less so over the past two millennia. But total population size is not very useful indicator of demographic power. Population density, urbanization (the proportion of total population living in cities (urbanization), and the sizes of the largest cities are much better reflections of the kinds of power that greater population confers. A recent study of the sizes of the largest cities in world regions over the past four millennia has demonstrated that the largest European cities began increasing their shares of population of the world's 20 largest cities in the thirteenth century of the Common Era (Chase-Dunn and Manning 2002). Contra Andre Gunder Frank (1997), the rise of Europe was not a last minute development that occurred in the late eighteenth century. Formerly peripheral Europe had been developing its own internal core region and expanding its cities and the power of its states for hundreds of years by the time China was finally eclipsed in the nineteenth century.

Shares of World GDP

Total GDP combines both economic development and economic size. It rises simply because there are more people. Thus a graph of shares of world GDP over the last two millennia looks quite similar to Figure 3 above until the beginning of the nineteenth century. This is to say that India and China contained most of the world's GDP because they contained most of the world's population. But after 1800 CE this began to change because of the rapid increase in GDP per capita in certain European countries and the United States. Figure 4 (below) shows the shares of world GDP held by the core countries of the European interstate system since 1820. Maddison (1985) provides estimates for 1820 and 1850, and then yearly estimates from 1870 on. We have interpolated his estimates of total world GDP in order to calculate the yearly shares after 1870, and we have added data from Maddison (2001) for the years after 1994.

Figure 4: Shares of World GDP, 1820-1998



The first question is whether or not shares of world GDP are really a good indicator of hegemony. Obviously GDP does not capture the military, political or cultural aspects of hegemony. And it is perhaps not the best indicator even for economic hegemony because, as we have pointed out above, a strong component of GDP is merely demographic. With these qualifications in mind let us discuss the features revealed in Figure 4.

The most striking feature of Figure 4 is the rapid ascent of the U.S. economy in its size relationship with the world economy as a whole from less than 2% in 1820 to a peak of 35% in 1944. The U.S. share slumped precipitously from 1929 to 1933, and then rapidly ascended again to its highest point in 1944. A rapid post-World War II decline was followed by a slight recovery that began in 1949 and then, beginning in 1951, a slow decline to a low point of 19% in 1992. After that there was a renewed ascent to almost 22% in 1998, the most recent year in which we have comparable estimates from Maddison (2001). The U.S. GDP share trajectory supports discussions of U.S. hegemonic rise and decline in the world economy, but the details contradict some versions of this trajectory. By the measure of share of world GDP the U.S. hegemonic decline began in 1944, not in 1970 as some world-systems analysts have claimed. There were three steps of U.S. decline, the first beginning in 1944, the second in 1950 and the third in 1970.

What are the implications of Figure 4 for our understanding of the British hegemony? Figure 4 shows the British ascent from 5% in 1820 to a peak of almost 9% in 1870, some wobbling and then a slightly higher 9% in 1899, followed by a slow decline to 3.3% in 1998. Those observers who have emphasized the difference in scale between the huge U.S. primacy and much smaller British component of the world economy are correct. At its highest peak in 1899, during the Edwardian *belle époque*, the British economy only constituted 9% of the world economy. Recall that the U.S. peak in 1944 was 35%. The U.S. passed Britain in 1870.

The French economy peaked in 1872 and then entered a slow decline. The German economy fluctuated between 3 and 5½%, with its most recent peak in 1962. The Japanese economy rose from 1820 to a peak of 4.4% in 1940, then fell after World War II and rose again to a peak of 8.6% in 1992, from whence it fell back to 7.5% in 1998.

Of interest for the question of hegemony is the size of the European Union, an emergent core polity that will change the terrain of global geopolitics (Boswell 2002). We have used Maddison's aggregation of twelve Western European countries as an approximation for the relative economic size of the European Union in Figure 4. These countries contained 25% of the world's GDP in 1962, but have declined since then to slightly less than 18% in 1998. The recent trajectories, since 1992, of Japan and the European Union have been down, while the U.S. has experience a rise from 19.6% in 1991 to 21.9% in 1998. These differences may have implications for future trajectories and for the question of possible hegemonic rivalry among core states. We will return to this issue after considering a different measure of economic hegemony, the ratio of national GDP per capita to the average world GDP per capita.

Ratio of National Level of Economic Development to the World Average

As we have mentioned above, shares of world GDP indicates a combination of size and economic power. Large and populous countries such as China and India are high on this measure, and this is why we consider them to be in the semiperiphery. But power status in in the modern world-system is more than just a matter of size. It is fundamentally a matter of economic development, meaning the ability to produce capital-intensive products and to specialize in types of production that employ highly skilled labor. A better indicator of this is GDP per capita, though GDP per capita is not ideal. Some countries have high per capita GDP because they hold great natural resource wealth. Thus Saudi Arabia and Libya have relatively high per capital GDPs because of their huge oil exports. In order to indicate this important difference the United Nations often presents data for the oil-exporting countries separately. For the countries we are examining in Figure 5 below, the upper tier of the core, this is not an issue. Figure 5 shows the scores of countries based on the ratio between their national GDP per capita and the average world GDP per capita as presented in Maddison (1995, 2001). Figure 5 begins in 1500 CE, but again beware that the horizontal axis does not have equal temporal intervals. As with Figure 3, the earlier time intervals are allotted less space on the horizontal axis than are the later intervals. Keep this in mind as you interpret Figure 5.

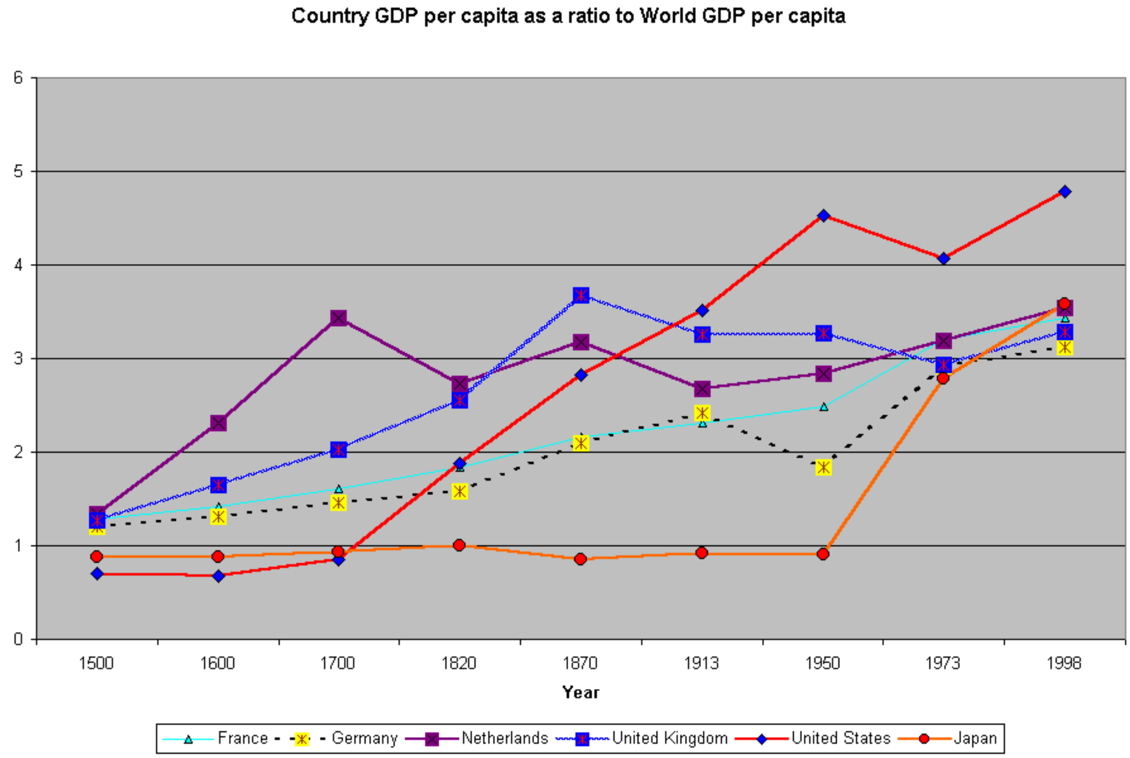


Figure 5: Country GDP per Capita as a ratio to Average World GDP per capita, 1500-1998

The first thing we can notice about Figure 5 is that all the core countries show a general upward trend in the ratio of their national GDP per capita to the world average GDP per capita. This is an indication that the trend toward greater inequality between the core and the periphery that has been noted in recent decades is in fact of long standing. But this is not our main concern in this paper. Rather we are investigating changes in relative differences among countries within the core and upwardly mobile semiperipheral challengers.

The seventeenth century economic hegemony of the Netherlands is indicated by its peak ratio of 3.4 in 1700. Interestingly, the Netherlands has returned to this same high point in 1998. The difference is that in 1700 the Netherlands was far ahead of its closest competitor, the United Kingdom, while in 1998 it was bunched together with all the other countries, save the United States, which was much higher.

The British hegemony of the nineteenth century is much more evident in Figure 5 than it was in Figure 4, and its high point appears to have been in 1870, though yearly estimates have not been computed for the GDP per capita ratios, and so 1870 may not in fact be the highest peak of the British ratio. Maddison's books do not contain estimates of British GDP per capita between 1700 and 1820 and so we are not able to see if the Modelski and Thompson contention of a British power cycle in the eighteenth century would be borne out by comparative economic data.

Figure 5 shows the long ascent of the United States to a peak in 1950 (ratio = 4.52), then a decline to 4.06 in 1973, and rise back to 4.78 in 1998. The U.S. ratio in 1998 is significantly larger than that of the second country as gauged by the GDP per capita ratio, Japan (ratio = 3.57). The story of Germany and France is a similar long rise, except for Germany's dip in 1950. Japan shows no rise in the GDP per capita ratio until after 1950, contradicting all the literature about Japanese development after the Meiji restoration. Japan's ascent after 1950 is quite rapid and in 1998 it is higher than any of the other core countries, save the United States.

Conclusions

Maddison's (1995, 2001) new estimates are not the best possible measures of relative economic power of core countries, as discussed above. But they do make it possible to make some long run and large-scale quantitative comparisons, and the results of have implications for future research on the problem of hegemony. It should be noted that the hegemonic rises of the Dutch, British and United States constitute a continuation of the phenomenon of semiperipheral development in which a formerly semiperipheral society transforms institutional structures and ascends to the top of a world-system.

The shares of world population based on the total population sizes of regions presented in Figure 3 demonstrate the shift of global demographic weight away from East and South Asia, but do not tell us much about the question of hegemony.

The shares of world GDP (Figure 4) tell us more. The United States became the 800-pound gorilla of the world economy in a rapid ascent after 1850. Figure 4 supports those who emphasize the important difference in scale between the *Pax Britannica* and the *Pax Americana* (Mann 1993, O'Brien 2002). And this difference may have significant implications for the possibilities of future hegemonic developments. Market size is clearly a valuable advantage that might facilitate the possibility of another round of U.S. hegemony. Figure 4 also shows that the rise of the European Union adds another gorilla of similar size to the global geopolitical landscape, but that the recent trajectory of the E.U. is down, while that of the United States has turned up.

Figure 5, based on the ratios of country GDP per capita to the world average GDP per capita, shows the seventeenth century Dutch hegemony, the nineteenth century British hegemony and the twentieth century U.S. hegemony in relative levels of economic development. It also shows a rapid Japanese ascent after 1950, and a new rise of the U.S. after a decline from 1950 to 1973.

The big question raised by our analysis of Maddison's data is the future trajectory of the United States. The Maddison data indicate that the U.S. decline after World War II was reversed in the early 1990s. The question is whether or not this is a real turn-around that is the beginning of a new phase of U.S. hegemony, or is only a temporary phenomenon similar to the Edwardian *belle époque* in the last decade of the nineteenth century.

Ultimately, only the future will tell. But in the meantime a close examination of other indicators of the U.S. position in the world economy can shed more light on this question. Trends in the U.S. balance of trade and balance of payments are germane. It is well known that the United States economy has increasingly imported more goods than it has exported. And there has been a huge increase in the amount of foreign direct and portfolio investment in the U.S. economy since the early 1990's. Proponents of the *belle epoque* thesis can argue that the rise in general indicators of U.S. position such as those found in the Maddison data result from the stock bubbles and over investment in housing and commercial real estate created by the influx of foreign capital investment. Much of the recent foreign investment has come from East Asian investors seeking greater returns than the ailing East Asian economies have been able to generate in the last decade.

But other analysts stress the advantages that the U.S. has been able to develop in new lead industries such as information technology and biotechnology. Rennstich (2001, 2002) argues that the huge size of the U.S. economy has made it possible for these new lead technologies to become relatively autonomous from the older declining industries within the United States, and that these will be the basis for a new round of U.S. economic leadership and another power cycle in which the U.S. will maintain its central location in the global economy. More detailed research on the comparative advantages and vicissitudes of the new lead industries, especially biotechnology, would be helpful for assessing the probabilities of a new round of U.S. hegemony (e.g. Chase-Dunn and Reifer 2002).

What are the implications of this study for our understanding of the potentialities of the contemporary globalization backlash? A potential renewed period of U.S. economic primacy can be understood as good news regarding its implications for future violent conflict among core states resulting from hegemonic rivalry. Such a potential future conflict among core states is only possible if U.S. hegemony continues to decline. The current situation of a single superpower is eminently stable as regards to the problem of conflict within the core. An important part of the last globalization backlash was due to hegemonic rivalry that was only resolved by the long World War between 1913 and 1945.

But the last globalization backlash had another major component – the rise of anti-systemic movements that challenged the domination of core capital. These rebellions against increasing inequalities resulted in the Mexican revolution, the Bolshevik revolution and anti-colonial movements that eventually succeeded in decolonizing almost all of Asia and Africa. The phenomenon of increasing intranational and international (North-South) inequalities is also an important dimension of the contemporary emerging globalization backlash, and we can expect important antisystemic movements to emerge that will challenge the power of transnational corporations and global elites. Semiperipheral countries with strong labor movements will probably develop democratically elected regimes that pursue self-reliant models of development once it becomes clearer that all boats will not rise on the tide of capitalist globalization.

It might be supposed that a renewed U.S. economic hegemony would automatically resist and suppress such developments. But it is also possible that political struggle resulting from increasing inequalities within the United States will challenge the use of U.S. power to suppress democratic movements and regimes in the semiperiphery. The people of the United States will likely be challenged to live up to the discourse about equality and democracy that has been promulgated by their leaders for so long, albeit on a global rather than a national scale.

References

Abu-Lughod, Janet 1989 *Before European Hegemony*. New York: Oxford University Press

Agnew, John A. 1987 *The United States in the World Economy: A Regional Geography*. Cambridge: Cambridge University Press.

________ 2001 "The new global economy: time-space compression, geopolitics and global uneven development." *Journal of World-Systems Research* 7,2: 133-154.

Anderson, David G. 1994 *The Savannah River Chiefdoms: Political Change in the Late Prehistoric Southeast*. Tuscaloosa, AL: University of Alabama Press.

Arrighi, Giovanni 1994 *The Long Twentieth Century*. New York: Verso

Arrighi, Giovanni and Beverly Silver 1999 *Chaos and Governance*. Minneapolis: University of Minnesota Press.

_______ 2002 "The Autumn of World Hegemonies: Three *Belles Époques* Compared." Paper presented at the annual spring Political Economy of World-Systems conference, University of California, Riverside, May 3-4.
Bairoch, Paul and Richard Kozul-Wright 1998"Globalization myths: some historical reflections on integration, industrialization and growth in the world economy," pp.37-68 in Richard Kozul-Wright and Robert Rowthorn (eds.) *Transnational Corporations and the Global Economy*. London: MacMillan
Bergesen, Albert 1996 "The Art of Hegemony." Pp. 259-278 in Sing Chew and Robert Denmark (eds.), *The Development of Underdevelopment: Essays in Honor of André Gunder Frank*. Thousand Oaks, CA: Sage, 1996.
Bergesen, Albert J. and John Sonnett, "The Global 500: Mapping the World Economy at Century's End." *American Behavioral Scientist* Vol. 44, No. 10 (June 2001): 1602-1615.
Bornschier, Volker and Christopher Chase-Dunn 1998 *The Future of Global Conflict*. London: Sage.
Boswell, Terry 2002 "Hegemonic decline and World Revolution: When the world is up for grabs" Paper presented at the annual spring Political Economy of World-Systems conference, University of California, Riverside, May 3-4.
Boswell, Terry and Albert Bergesen (eds.) 1987 *America's Changing Role in the World-System*. New York: Praeger.
Boswell, Terry and Mike Sweat. 1991. "Hegemony, Long Waves and Major Wars: A Time Series Analysis of Systemic Dynamics, 1496-1967." *International Studies Quarterly*. 35, 2: 123-150.
Boswell, Terry and Christopher Chase-Dunn 2000 *The Spiral of Capitalism and Socialism: Toward Global Democracy*. Boulder, CO.: Lynne Rienner.
Calleo, David, *Beyond American Hegemony: The Future of the Western Alliance*, New York: Basic Books, A Twentieth Century Fund Book, 1987.
Chase-Dunn, Christopher 1998 *Global Formation: Structures of the World-Economy*. Lanham, MD.: Rowman and Littlefield.
__________ 2001 "Globalization: a world-systems perspective," *Protosociology* 15:26-50.
__________ and Thomas D. Hall 1997 *Rise and Demise: Comparing World-Systems*. Boulder, CO: Westview
__________ and Susan Manning, 2002 "City systems and world-systems: four millennia of city growth and decline," *Cross-Cultural Research* 36,4 (November) http://www.irows.ucr.edu/cd/papers/isq01/isq01.htm
___________ and Bruce Podobnik 1995 "The Next World War: World-System Cycles and Trends" *Journal of World-Systems Research* 1, 6 http://csf.colorado.edu/jwsr/archive/vol1/v1_n6.htm
___________, Yukio Kawano and Benjamin Brewer 2000 "Trade globalization since 1795: waves of integration in the world-system." *American Sociological Review*, February.
Chase-Dunn, Christopher and Thomas E. Reifer 2002 "U.S. hegemony and biotechnology," Presented at the ISA Research Committee on Environment and Society RC24, XV ISA World Congress of Sociology, Brisbane, Australia, July 7-13.
Collins, Randall 1999 *Macrohistory.* Stanford: Stanford University Press.
Dehio, Ludwig, *The Precarious Balance: Four Centuries of the European Power Struggle*, New York: Alfred A. Knopf, 1962.
Frank, Andre Gunder 1998 *Reorient: Global Economy in the Asian Age*. Berkeley: University of California Press.
Friedman, Edward (ed.) *Ascent and Decline in the World-System*. Beverly Hills: Sage.

Friedman, Jonathan 1994 *Cultural Identity and Global Process*. London: Sage.
Goldfrank, Walter L. 1977 "Who rules the world: class formation at the international level" *Quarterly Journal of Ideology* 1,2:32-7.
_____________1983 "The limits of an analogy: hegemonic decline in Great Britain and the United States." Pp. 143-54 in Albert Bergesen (ed.) *Crises and the World-System*. Beverly Hills: Sage.
Goldstein, Joshua 1988 *Long Cycles: Prosperity and War in the Modern Age*. New Haven: Yale University Press.
Gordon, David M. 1980 "Stages of accumulation and long economic cycles." Pp. 9-45 in Terence K. Hopkins and Immanuel Wallerstein (eds.) *Processes of the World-System*. Beverly Hills: Sage.
Hamashita, Takeshi 1988 "The Tribute Trade System and Modern Asia," *The Memoirs of the Toyo Bunko*, 46: 7-25.
Hardt, Michael, and Antonio Negri. 2000. *Empire*. Cambridge, Mass.: Harvard University Press.
Hart, Jeffrey A. 1992 *Rival Capitalists: International Competitiveness in the United States, Japan and Western Europe*. Ithaca: Cornell University Press.
Held, David, Anthony McGrew, David Goldblatt and Jonathan Perraton 1999 *Global Transformations: Politics, Economic and Culture*. Palo Alto, CA.: Stanford University Press.
Hobsbawm, Eric 1968 *Industry and Empire*. Baltimore: Penguin.
Hopkins, Terence K. and Immanuel Wallerstein 1979 "Cyclical rhythms and secular trends of the capitalism world-economy." *Review* 2,4:483-500.
Huntington, Samuel 1996 *The Clash of Civilizations and the Remaking of World Order*, New York: Simon & Schuster.
Junne, Gerd 1999 "Global cooperation or rival trade blocs?" in Volker Bornschier and Christopher Chase-Dunn (eds.) *The Future of Global Conflict*. London: Sage.
Kennedy, Paul, 1980 *The Rise of the Anglo-German Antagonism, 1860-1914*, London: Ashfield Press.
___________ 1987 *The Rise and Fall of the Great Powers*, New York: Vintage Books.
Kentor, Jeffrey. 2000. *Capital and Coercion: The Economic and Military Processes That Have Shaped the World Economy 1800-1990*. New York: Garland Publishing.
__________ 2002 "Conduits of Power: Transnational Corporate Networks and Hegemony" Paper presented at the annual spring Political Economy of World-Systems conference, University of California, Riverside, May 3-4.
Kowalewski, David. 1997. *Global Establishment: The Political Economy of North/Asian Networks*. New York. Macmillan Press.
Maddison, Angus 1995 *Monitoring the World Economy, 1820-1992*. Paris: Organization for Economic Cooperation and Development.
__________ 2001 *The World Economy: A Millennial Perspective*. Paris: Organization of Economic Cooperation and Development
Mandel, Ernest 1980 *Long Waves of Capitalist Development: the Marxist interpretation*. London: Cambridge University Press.
Mann, Michael 1993 *The Sources of Social Power*, Vol. 2. Cambridge: Cambridge University Press.
McCormick, Thomas J. 1989 *America's Half Century: United States Foreign Policy in the Cold War*. Baltimore: Johns Hopkins University Press.
McNeill, William H., *The Pursuit of Power: Technology, Armed Force, and Society Since A.D. 1000,* Chicago: University of Chicago Press, 1982.

Misra, Joya and Terry Boswell 1997 "Dutch hegemony: global leadership during the age of mercantilism" *Acta Politica: International Journal of Political Science* 32:174-209.
Modelski, George and William R. Thompson 1996 *Leading Sectors and World Powers: the Coevolution of Global Economics and Politics.* Columbia: University of South Carolina Press.
Murphy, Craig 1994 *International Organization and Industrial Change: Global Governance since 1850*. New York: Oxford.
O'Brien, Patrick K. 2002 "The Pax Britannica, American hegemony and the international economic order, 1846-1914 and 1941-2001." Paper presented at the annual spring Political Economy of World-Systems conference, University of California, Riverside, May 3-4.
O'Rourke, Kevin H and Jeffrey G. Williamson 1999 *Globalization and History: The Evolution of a 19th Century Atlantic Economy*. Cambridge, MA.: MIT Press.
Pfister, Ulrich & Christian Suter 1987 "International Financial Relations as Part of the World-System" *International Studies Quarterly*, 31:239-272.
Polanyi, Karl 2001 [1944] *The Great Transformation*. Boston: Beacon Press.
Pomeranz, Kenneth 2000 *The Great Divergence*. Princeton: Princeton University Press
Rasler, Karen and William R. Thompson 1994 *The Great Powers and Global Struggle, 1490-1990*. Lexington: University of Kentucky Press.
Rennstich, Joachim K. 2001 "The Future of Great Power Rivalries." In Wilma Dunaway (ed.) *New Theoretical Directions for the 21st Century World-System* New York: Greenwood Press.
_______ 2002 "The phoenix cycle: global leadership transition in a long-wave perspective." Paper presented at the annual spring Political Economy of World-Systems conference, University of California, Riverside, May 3-4.
Reifer, Thomas E. 2002 "Globalization & the National Security State Corporate Complex (NSSCC) in the Long Twentieth Century," Greenwood Press, *The Modern/Colonial Capitalist World-System in the 20th Century*, Ramon Grosfoguel and Margarita Rodriguez, eds., Westport, CT: Greenwood Press.
Robinson, William I. 1996 *Promoting Polyarchy: Globalization, U.S. Intervention and Hegemony,* Cambridge University Press.
Sassen, Saskia 2001 *The Global City: New York, London, Tokyo,* Princeton: Princeton University Press Second revised edition.
Silver, Beverly and E. Slater 1999. "The Social Origins of World Hegemonies". In G. Arrighi, et al. *Chaos and Governance in the Modern World System*. Minneapolis: University of Minnesota Press, 151-216.
Sklair, Leslie. 2001. *The Transnational Capitalist Class*. Malden, MA: Blackwell Publishers.
Su, Tieting. 1995. "Changes in World Trade Networks: 1938, 1960, 1990" *Review* XVIII, 3:431-459 (Summer)
Suter, Christian 1992 *Debt Cycles in the World Economy: Foreign Loans, Financial Crises and Debt Settlements, 1820-1987*. Boulder, CO: Westview.
Taylor, Peter J. 1996 *The Way the Modern World Works: World Hegemony to World Impasse*. New York: Wiley
Thompson, William R. 1992 "Dehio, long cycles, and the geohistorical context of structural transition," *World Politics*, Vol. 45,1:127-152.
__________. 2000a *The Emergence of the Global Political Economy*. London, Routledge
__________ 2000b "K-waves, leadership cycles and global war:…" Pp. 83-104 in Thomas D. Hall (ed.) *A World-Systems Reader*. Lanham, MD.: Rowman and Littlefield.

Van der Pijl, Kees. 1984. *The Making of an Atlantic Ruling Class.* London: Verso.
_______________ 1998 *Transnational Classes and International Relations*, New York: Routledge.
Wallerstein, Immanuel 1974 The *Modern World-System*, Volume 1. New York: Academic Press
___________1980 *The Modern World-System* Volume 2. New York: Academic Press.
___________1984 'The three instances of hegemony in the history of the capitalist world-economy," Pp. 100-108 in Gerhard Lenski (ed.) *Current Issues and Research in Macrosociology*, International Studies in Sociology and Social Anthropology, Vol. 37 Leiden: E,J. Brill.
_________ 1989 *The Modern World-System Volume* 3, New York: Academic Press.
__________ 2002a"The United States in decline?" Paper presented at the annual spring Political Economy of World-Systems conference, University of California, Riverside, May 3-4. Forthcoming in Thomas E. Reifer (ed.) *Hegemony, Globalization and Anti-Systemic Movements.* Westport, CT: Greenwood.
__________2002b "The eagle has crash landed." *Foreign Policy* (July-August) Pp. 60-68.
Waltz, Kenneth N. 1979 *Theory of International Politics*. New York: McGraw-Hill
Wilkinson, David 1988 "Universal empires: pathos and engineering." *Comparative Civilizations Review* 18:22-44 (Spring).
___________ 1999 "Unipolarity without hegemony." *International Studies Review*. 2 :141-172. (Summer)